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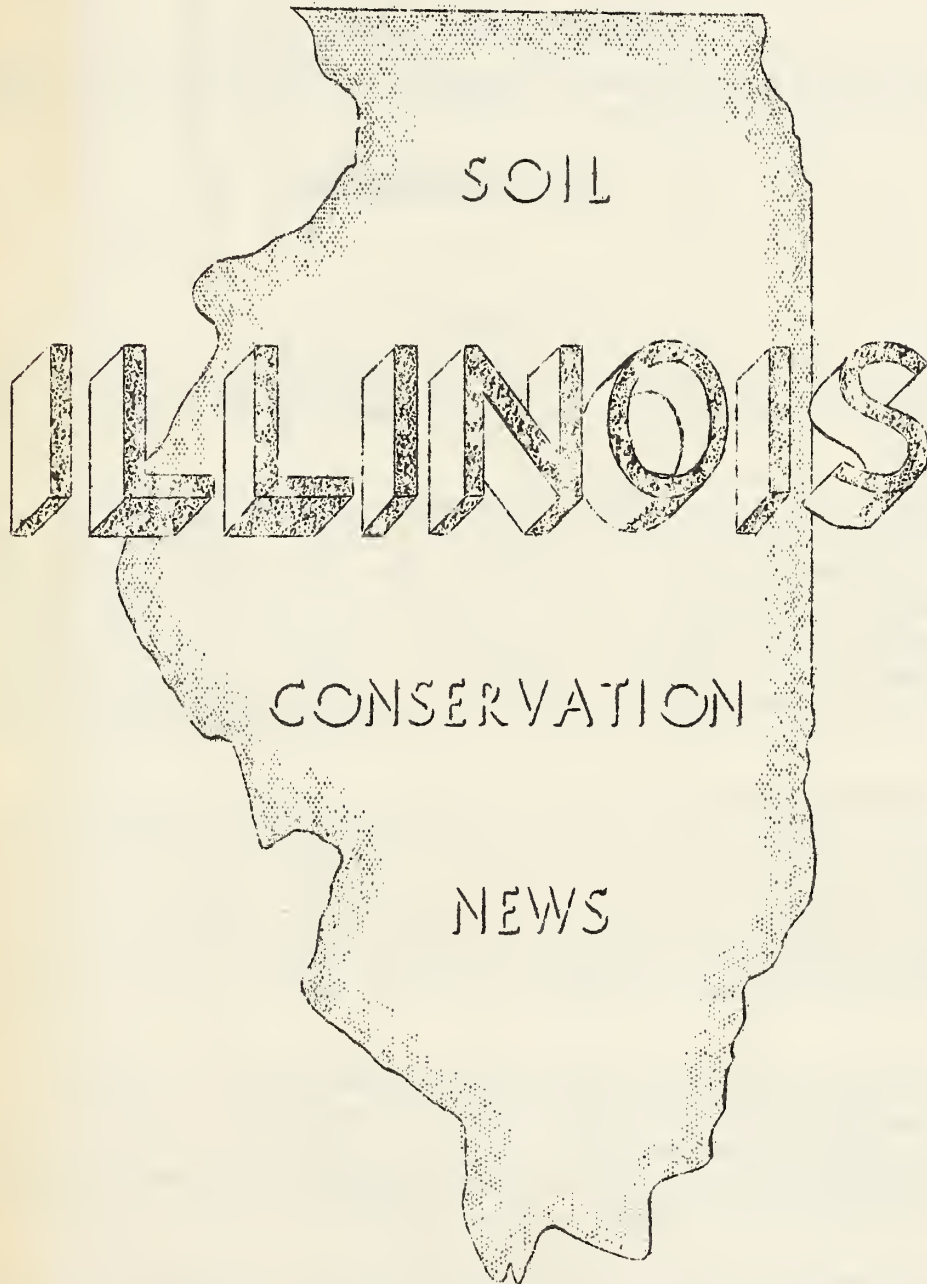
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U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE



DECEMBER 1935

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UNITED STATES OF AMERICA

DEPARTMENT OF THE ARMY

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SOIL CONSERVATION NEWS

The Illinois Soil Conservation News is published at Champaign, Illinois by the Soil Conservation Service of the U. S. Department of Agriculture to create a greater interest in the conservation of soil and water on Illinois farms.

F. A. Fisher, Regional Director

DECEMBER

-SCS-

1935

THE PRESIDENT SPEAKS

ON

SOIL CONSERVATION

The following paragraphs are taken from a statement made by President Roosevelt on October 25 dealing with the crop adjustment program and soil conservation:

"Present and future production of supplies of food and fiber ample for this country's needs and for available export markets is a sound objective. However, there was nothing sound in the situation in the past when, spurred by ruinously low prices, farmers have been compelled to mine their soil of its fertility by overintensive cultivation in a race to make up in volume of units what they had lost in unit price. This has resulted in waste on a colossal scale. Dust storms and mud-laden streams have been symbols of this exploitation.

"Tens of millions of acres have been abandoned because of erosion. This jeopardizes both consumer and producer. Real damage to the consumer does not result from moderate increases in food prices, but from collapse of farm income so drastic as to compel ruthless depletion of soil. That is the real menace to the nation's future food supply. That has caused farmers to lose their homes. It has hastened the spread of tenancy. It lies at the root of many serious economic and social problems besetting agriculture.

"Already the adjustment programs have made important gains in conservation and restoration of soil fertility. Many millions of acres which farmers have signed contracts to divert from surplus production are being devoted to legumes, pastures, hay and other crops which fertilize the soil and protect it from blowing and washing.

"The long-time and more permanent adjustment program will provide positive incentives for soil conservation. The benefit payments will help farmers to maintain these beneficial systems of farming without interruption in poor crop years."

GOOD STRIP CROPPING PLAN SHOWN ON FITCHHORN FARM
(See illustration on opposite page)

H. E. Fitchhorn, who lives on U. S. Highway 150 in McLean County, has adopted a plan of strip cropping on a 17-acre field which was beginning to wash badly. This field slopes to the south and east. The upper part of the slope is about 7 per cent gradient and lower part is about 4 per cent.

Originally it was intended to seed alfalfa at the top and bottom of the slope and use three strips between. After staking out the strips, 12 rods wide, it was evident that they were too wide to be most beneficial, so the strips were restaked to be more narrow. Under the second plan six strips were laid out on the contour of the slope. These included two series of three strips each with a rotation of corn, oats and red clover planned for each series. The alfalfa patch at the top of the slope will decrease the flow of runoff at that point and thus aid in controlling sheet erosion farther down the slope. A draw at the lower end of the field will be protected by the alfalfa there. By using alfalfa in the pointed sections of the field, at top and bottom of slope, point rows will be eliminated in the strips. Sweet clover and rye are being used in some of the strips to build up organic matter content of the soil. The proposed rotation will be in complete effect by 1937.

The rotation of corn, oats and red clover, to be used on the Fitchhorn farm, is among the best rotations for Illinois farms, from an erosion control standpoint. In this rotation, corn, our most erosive crop, is limited to one year. Results obtained on an 8 per cent slope of Shelby silt loam at the Bethany, Missouri, Erosion Experiment Station show that where corn followed clover the soil loss was only 40.3 per cent as great as where corn followed corn. The clover will be an ideal winter cover crop and will add organic matter to the soil thus making it more absorptive and thereby decreasing runoff and soil loss.

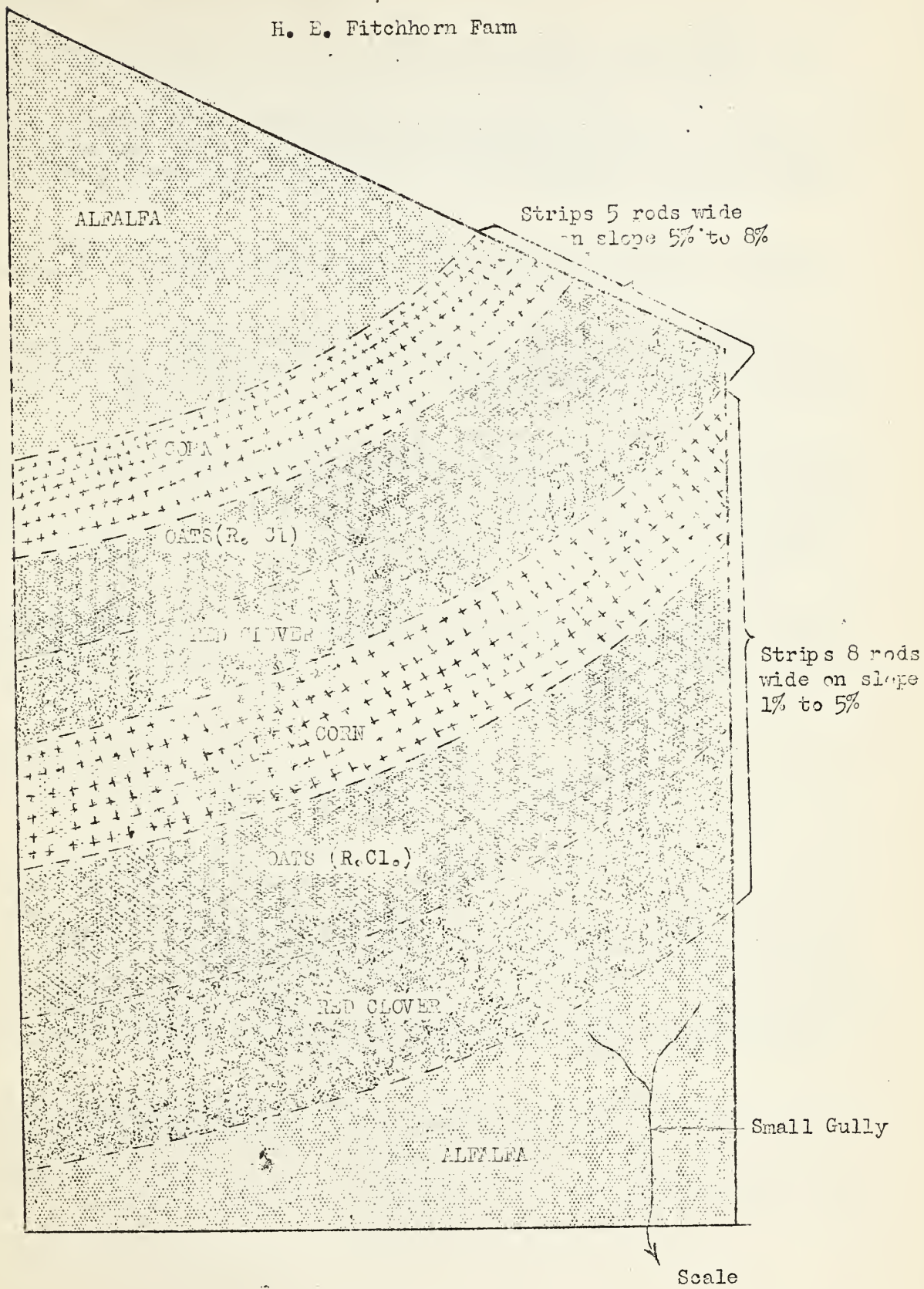
The width of strips to use in strip cropping is dependent on several factors among which are, degree and length of slope, type of soil and crops to be grown. The strips on the 7 per cent slope in the field mentioned above will be only 5 rods wide but this width has been increased to 8 rods for strips on the lower part of the slope which averages about 4 per cent gradient. The soil on this field is Miami silt loam, a light colored timber soil which is more erosive than the dark colored prairie soils. Consequently, it is necessary to keep the strips more narrow than would be required on less erosive soil.

The strips should be uniform in width to prevent the necessity of having point rows where a cultivated crop is grown. The number of strips should be made to fit the number of crops in rotation but not to the extent of making the strips too wide. Crops with different seeding dates should be planted so that no two adjacent strips are bare and subject to destructive erosion at the same time. Similarly, erosive crops such as corn and soybeans should not be used on adjacent strips in the same year. Clover or alfalfa planted on the strip immediately below a strip of corn will greatly reduce the loss of soil and runoff water which otherwise would be carried out of the field.

ILLUSTRATION OF STRIP CROPPING PLAN

on

H. E. Fitchhorn Farm



Size of Field = 17 Acres

1 inch = 8 rods

WITH OTHER FARMERS IN ILLINOIS

(Examples of erosion and control methods on farms in various parts of the state are reported below.)

1. One field on this farm produced bumper crops of corn in 1924 and 1925. During these two years erosion was serious. The cooperators says that he has been paying for those two bumper crops of corn ever since that time in lowered production.
2. Although this farm is mostly flat land, erosion is causing considerable damage. A gully from the farm above is carrying large quantities of sand and gravel onto his good fields.
3. The owner bought this farm for \$18.00 an acre. The farm is rough and fields are irregular. He was successful with a few acres of alfalfa last year and received \$22.00 per acre from sale of alfalfa hay.
4. That part of this farm subject to serious erosion has been abandoned for five years. The owner is willing to leave it out of cultivation or pasture for five years longer. It is rolling land with slopes that are steep on which serious gullying has occurred which can be properly controlled only by tree planting. The owner agreed to planting this to trees and give it protection from pasture and fire.
5. The owner of this farm would not sign up when first contacted, but later he stated that his land depreciated \$15.00 per acre during the spring rains. He then wanted to sign up for several acres of terracing, and agreed to farm with the terraces.
6. This farmer built terraces three years ago which have performed well. He was able to get an extension of loan on his farm because of these terraces. Four additional terraces have been constructed this year and more will be built later.
7. This farm consists of 400 acres of rolling land. Each field has several slopes in various directions making them unsuitable for terracing. The cooperators uses a corn, corn, oats and red clover rotation. Sweet clover, was recommended to replace some of the red clover, because it will furnish more organic matter which the soil needs badly. Forty acres of rolling cultivated land has been limed and put into pasture. It seems advisable to terrace about 7 acres of it to prevent the limestone from washing away. Grass has been established in several waterways. I have not seen a farm in this area that did not need additional grass waterways.
8. Tree planting was completed on this farm last spring and trees now average about three feet in height as well as having about 90 per cent survival. On one small planting area, however, cattle had broken in through an old fence and most of the locust trees were gone. This just simply proves that small seedlings will not survive where livestock are allowed to run. The owner fixed up the broken fence.

9. Mr. Miller is farming in the rough area north and west of Mt. Carroll. About ten years ago he started a soil improvement program, applying lime and growing clovers and alfalfa. About three years ago he became interested in terraces and since has done a great deal of terracing. He builds the terraces with a plow, a V-drag, slip scrapers and shovels. He is doing strip cropping and contour farming with the terraces. Mr. Miller did not want to tear up an alfalfa field for corn until it had been terraced. Yields have been built up by legumes and good seed. Mr. Miller said that the corn yield was about 25 bushels per acre when he began his soil improvement program ten years ago. He estimates his yield now is between 60 and 70 bushels per acre.

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EVERY CROP ACRE GROWS A LEGUME ANNUALLY

C. V. Bader of near Rushville, Illinois, has a 120-acre farm of which 70 acres are tillable. He has limed all of the tillable land and has applied rock phosphate twice. Every crop acre of Mr. Bader's farm grows a legume each year. Sweet clover is seeded in the corn and other clovers are planted in the small grain. All residues and manures are returned to the fields. Probably no more can be done than is already being done with crops to reduce erosion losses. A few terraces already have been made on the farm and others have been laid out recently by engineers of the camp. When these terraces are finished sixty of the seventy tillable acres will have been terraced. Of the three terraces formerly built on this farm one empties on blue grass sod which showed no cutting. The outlets to the other terraces are tiled through a bank into a roadside ditch. About ten years ago the owner constructed two concrete dams near the head of cutting gullies, and, even though there were no supporting dams below, these dams have held and have done excellent work. The results of the work on Mr. Bader's farm indicate what the individual farmer can accomplish in controlling erosion on his own land if proper methods are followed.

-SCS-

2735 SEE CONSERVATION FILMS

Motion picture films were shown before 2,735 farmers, CCC boys and other interested groups in Illinois during September. Twenty-two showings were made throughout the State.

The films were borrowed from the Motion Picture Division of the U. S. Department of Agriculture. Motion picture projection machines were borrowed from farm bureau offices and other organizations over the state. The eight sets of films shown here were: "Anchored Acres", "Save the Soil", "Saving the Soil by Terracing", "Our Wildlife Resources", "Trees of Tomorrow", "Camp Roosevelt", "The CCC at Work" and "Forests and Streams."

A great deal of interest was expressed in seeing motion pictures of conservation work. We hope to have more films to show later.

PASTURES PAY

If all sloping land in Illinois were covered with a good growth of grass there would be practically no erosion. Since the Illinois system of farming does not permit this the Soil Conservation Service recommends more grasses, more legumes and more livestock on rolling land. It will pay well now and will bring good returns in the future. By combining an increased acreage of grasses and legumes with efficient livestock farming depleted soil can be built up without sacrificing the farm income.

"Livestock pays. A good stockman makes more money than a good grain grower, as shown by farm management records. Usually the efficient handling of livestock has accounted for about \$1,000 of extra income a year for the best Illinois farmers.

" 'Back to Grass' is the general tendency now upon stock farms. Pasture saves labor and machinery costs, saves grain and hay, and agrees with any stock better than dry lot feeding. Stock makes no labor charge for gathering grass. This helps pastures to pay even on tillable land which might produce twice as much meat to the acre if grain were grown there and fed to stock. Much rolling land now is in cultivation which should be in grass. Studies in Missouri and Iowa showed that AS MUCH EROSION TOOK PLACE ON CORN LAND IN ONE YEAR AS ON BLUEGRASS IN 47 YEARS."

It is the good pasture which is insurance against erosion and which increases the farmer's net returns.

"Many Illinois pastures serve principally as a location for the stock, and a poor location at that. The grass is scattered and short; there are no trees; the water is some distance down the lane. Animals on such pastures work hard to gather enough short blades of grass to satisfy them until another day. They do not thrive or grow, or give much milk or get fat.

"Legumes for pasture and hay might well occupy one acre out of every four of Illinois farm land. A 4-year rotation which many good stockmen use on prairie land is: 1. corn, 2. corn, 3. small grain, 4. mixed clovers, alfalfa and grass for pasture and hay."

DO YOU HAVE ONE-FOURTH OF YOUR FARM IN LEGUMES?

(Quotations in this article are taken from an "Outline for a Livestock Management School" prepared by E. T. Robbins, livestock extension specialist, Illinois College of Agriculture.)

GRASS NEEDED IN WATERWAYS

One of the most important immediate needs of the demonstration area in Madison County for controlling erosion is good grass waterways. There were only a few natural grass waterways in the area and most of them are too narrow and the banks are too steep.

The Soil Conservation Service started work in this area somewhat late for producing much vegetation this fall, but the weather was favorable and seedings made during the first two weeks of October have made fine growth. Growth of grass has been especially satisfactory in waterways through wheat fields. Since wheat is the predominating crop in this area the use of vegetation in draws is being stressed as a practical method for preventing and controlling gully erosion.

Farmers are establishing the grass waterways on their farms under the supervision of the SCS staff members. It is recommended that the waterways in Madison County should be approximately 2 rods wide. If waterways to large watersheds are less than that, there is danger of runoff from heavy rains cutting gullies along the edges of the waterways. Farmers are advised not to cultivate through draws. If the sod is broken, gully erosion may start readily and, if uncontrolled, may ruin large areas of a field. On the farms of the first six cooperators in this area all of the draws through wheat fields subject to gullying have been seeded to grass.

This same practice can be applied all over the state. Although some men hate to exert themselves to pull the plow in crossing these grass waterways it will be easier to do that now than to farm around gullies too deep to cross a few years later.

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FIRE!! FIRE!!

Wherever fire is allowed to destroy plant material on sloping land, erosion immediately becomes more serious. Any kind of plant litter which can be left on the ground will help a great deal to reduce soil washing. This is especially true of woodlands where leaves and twigs collect to form a mulch. Records show that a good mulch will prevent erosion almost entirely on forested areas. On the other hand, in a few instances burning of forest litter over large areas has been known to cause excessive runoff of rainfall resulting in disastrous floods.

What is more important in this state is the conservation of all plant material on cultivated slopes. Advantages of leaving vegetation on the land are: (1) The soil will be enriched by addition of humus and nitrogen from decaying plants. (2) Addition of vegetative material makes the soil more porous thus causing it to absorb more rainfall. (3) Plant material on top of the soil lessens the speed of runoff water and catches much soil which otherwise would be carried off unprotected fields. Each cornstalk, weed or other plant lying on a slope will catch a little soil and the total amount saved in this manner is surprisingly large. All plants should be dragged down this fall so as to cover the soil as much as possible. (4) A mulch on the soil will reduce the amount of freezing and thawing which processes increase the amount of erosion.

EROSION CONTROL NECESSARY TO SOLVE DRAINAGE DISTRICT MAINTENANCE PROBLEM

SOIL CONSERVATION ASSOCIATION IS ORGANIZED TO SOLVE THE PROBLEM

The Commissioners of the Sny Drainage District have appealed to the superintendent of the Soil Conservation Service camp at Pittsfield to assist in controlling erosion on the uplands adjoining their drainage district because they realize that therein lies the only hope of solving their problem of maintenance cost.

To quote from a letter written by W. P. Ireland, superintendent of CCC Drainage Camp, Ill-4, New Canton, Illinois:

"For many years the big maintenance problem in the Sny Island Drainage District (Pike County, Illinois) has been to dispose of enormous quantities of silt brought down from the hills by the streams traversing the district and deposited in their outlet channels.

"The channels have been dredged out and settling basins constructed to retain the silt and prevent it from choking the natural drainage outlets. However, the silting action has continued unabated, and the cost of maintaining channels, levees and basins has mounted to a prohibitive figure.

"It is my opinion that no economic or enduring solution of the silting problem can be attained in the Sny Island District until a comprehensive plan of erosion control has been worked out and applied to the uplands whence the silt originates.

"The watersheds of the three principal streams in this district - Hadley, Kiser and Bay creeks - unite in that section of the county which includes Hadley, New Salem, Griggsville, Pittsfield and Newburg townships. This would appear to be the logical place to undertake erosion control on a large scale. Once under way, the work could then be extended down the several streams into other townships and to include smaller streams in the lower hill lands that are also active silt carriers.

"I am informed that the field activities of the Erosion camp at Pittsfield consist in part of terracing, contour furrowing, strip cropping, improving forest stands and gully control. This is the type of work most needed in the above watersheds, and I have no doubt that the farmers in these watersheds would be glad to participate in a work program of this nature when they realize that its principal object is the preservation of their all-important topsoil."

Mr. V. C. Nickerson, superintendent of the Soil Conservation CCC camp at Pittsfield, met November 5th at Mr. Ireland's invitation with the Commissioners of the Sny Drainage District to discuss this problem. It was brought out that the three streams causing the most difficulty in the Sny District were Hadley Creek, Kiser Creek and Bay Creek, with drainage areas of 75 square miles, 56 square miles and 84 square miles, respectively. The

commissioners appreciated that one CCC erosion camp could by their direct labor, make very little impression in any year on the problem of reducing the silting by erosion from an area of 216 square miles. The necessity for education of the farmer on these drainage areas, to do the major part of the erosion control work, was made plain and the consensus of opinion after the meeting was that a county-wide educational program was needed to interest the upland farmers in practicing erosion control methods.

Mr. Nickerson told of the formation of the Pike County Soil Conservation Association and pointed out that the Pike County Soil Conservation Association is designed to include every person in Pike County who is interested in erosion control and better land use and that it is through this Association that the education of the farmer must be accomplished. To that end, the Pike County Soil Conservation Association has been formed, with education and publicity as its main object. This purpose is clearly stated on the reverse side of the membership card of which facsimiles of both obverse and reverse sides are shown below:

THE PIKE COUNTY SOIL CONSERVATION ASSOCIATION	
NAME-----	
ADDRESS-----	
IS A MEMBER IN GOOD STANDING	
FROM-----19--	TO-----19--
NO.-----	Secretary-----
(over)	

Realizing that all the people of this county, whether farmers or engaged in business or professional work, are dependent on the soil and its products, we have associated to work for better farm practices, better living conditions on the farms and closer cooperation between town and country in order that we may all prosper.

We shall gather and disseminate information on the menace to farm lands by soil erosion and the danger to our towns of a failing water supply.

We shall use all means in our power to combat these dangers to our farms and our towns.
(over)

A REAL JOB AHEAD IF SOIL EROSION CAUSES EARTHQUAKES

NOTED GEOLOGIST SAYS IT DOES!!!

It is a well-known fact that soil erosion has done an enormous amount of earthly damage. The most recent destruction of which erosion is accused is the causing of earthquakes. A noted geologist explains the relationship in a newspaper story released by the Associated Press on November 1 and reprinted below.

"The earthquake that troubled across the Eastern states early today (November 1) was blamed by a coast and geodetic survey expert on the earth shifting its surface load--disturbance 'of the isostatic balance'.

"The principle as explained today by Major William Bowie, authority on geology, is that the earth is composed of two materials, the first a solid outer crust about 60 miles thick which floats on top of the second, a dense plastic material which forms the core of the earth and supports the crust much as water supports a floating iceberg.

"With erosion going on constantly and soil being carried from mountains and highlands to the sea a vast weight of soil is carried from one part of the earth's crust to another, thus disturbing the isostatic balance of it', Major Bowie declared.

"As the load is piled on the crust it will at first yield elastically,' he added. 'No doubt there is some plastic movement of the crust, but at times the weight becomes greater than the elastic limit of the rock and then a sudden break or snap occurs.'"

Perhaps the vast amount of Illinois soil now resting in the Gulf of Mexico helped to produce these disturbances. More than 400,000,000 tons of soil are carried to the Gulf by the Mississippi River each year. This amount of soil would fill enough freight cars to reach from New York to San Francisco 25 times. Four hundred million tons is a lot of weight to change position on the earth. Perhaps it does cause earthquakes, but the greatest damage it does is the loss to once fertile farm lands.

NINETY-SIX FARMERS ATTEND TOUR OF MADISON COUNTY PROJECT

Ninety-six farmers attended the first tour of the Madison County Soil Conservation Service demonstration area held November 1. Although the Soil Conservation Service had been operating in this area only one month it was possible to demonstrate some effective erosion prevention and control measures which already had been put into practice.

A stop was made on the farm of W. H. Bohm to view a grass waterway which Mr. Bohm had established after several temporary dams had been built in the gully by SCS. Mr. Bohm had done a good job of sloping the gully banks. An excellent stand of red top and timothy was growing throughout the length of the waterway. On the William Rohrkaste farm, gully structures, grass waterways and diversion terraces were inspected. The diversion terraces had been made by Mr. Rohrkaste with a V-drag.

Dinner was served to the visitors at Camp Wheeler, the CCC Camp at Edwardsville. In the afternoon Farm Adviser May and members of the camp and demonstration project staffs discussed the problems of erosion control in Madison County and the work of the CCC Camp and the demonstration area. Captain Browbaker conducted the visitors on an inspection trip through the camp buildings and explained the details of camp life.

During the afternoon two types of pasture terrace construction were observed on the Harry Sickbert farm. Mr. Sickbert had built some with his teams and a V-drag and others had been built by SCS terracing equipment. Throughout the tour, the importance of following a complete erosion prevention and control program was stressed. In the discussions, special emphasis was placed on the growing of legumes, establishing of grass in waterways keeping the soil covered with erosion-resistant crops and terracing long gentle slopes subject to erosion.

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BUSINESS MEN MEET TO DISCUSS EROSION CONTROL

Members of the Carbondale Business Men's Association, the local Farm Adviser, and the Soil Conservation Service and Army personnel of the CCC camp located at Murphysboro held an interrelationship meeting November 20 at the camp to bring about a better understanding regarding the work and program of the Soil Conservation Service in Jackson County.

Mr. J. G. McCall, farm adviser, who represents the Extension Service of the College of Agriculture, and Mr. J. V. Dappert, camp superintendent, who represents the Soil Conservation Service, are putting forth an effort to make the business men and townspeople of the community realize that it is just as important that they be interested in and understand the program to save the soils as it is for the farmers to be interested in and understand the program because a prosperous farm community, which can result from good soils only, will make for a much more prosperous town than one supported by subsoil farmers.

PLANT TREES TO PROTECT BADLY ERODED AREAS

About 5,000,000 trees protecting 2,500 acres of farm land against erosion will be planted this fall by CCC boys from the 32 soil conservation camps now operating in Illinois. Trees are to be planted in gullies and on badly eroded areas which are unsuited for other crops. Most of the planting in southern Illinois will be done next spring when it is planned to plant 30,000,000 trees to cover 15,000 acres as a part of the program to conserve the state's soil.

The Soil Conservation Service in cooperation with the State Extension forester and the State Department of Conservation is planning an extensive tree planting program for next year in Henry and Mason counties where wind erosion has robbed a large sandy area of most of its topsoil. It has been almost impossible to get a crop to grow on much of this area. It is believed that trees will check most of the soil blowing.

Black locust trees have been used more than any other species during the past year. This variety is especially adapted for erosion control because of its rapid growth and hardiness. Many trees planted in 1934 have made a growth of 4 to 6 feet in one year on land where all the topsoil had been washed away and where grass or field crops would scarcely grow. The black locust tree is a legume and in addition to reclaiming the land it will add valuable nutrients to the soil.

Some farmers in the state have found black locust trees to be a profitable cash crop. Fence posts can be cut from them when the trees have grown 12 to 20 yards. One farmer stated recently that he received more average yearly profit from a crop of black locust trees on rolling land than he could have made from corn on the same land.

About 63,000,000 tree seedlings now are being grown on two state nurseries operated cooperatively by the State Department of Conservation and the Soil Conservation Service for transplanting within the next two years. The Horner 80-acre nursery at Havana with an additional tract of 40 acres is growing 60,000,000 trees. The other 3,000,000 trees are being grown on the State 7-acre nursery near Jonesboro in Union County.

Seedlings being grown at these two nurseries include black locust, red pine, scotch pine, loblolly pine, shortleaf pine, white oak, red oak, pin oak, red cedar, yellow poplar, green ash, soft maple, walnut, Osage orange, Russian olive and small lots of miscellaneous species. Because of the scarcity of acorns in Illinois a carload has been purchased for planting this fall in addition to what could be collected. Also about 75,000 pounds of black walnuts are being spot planted.

"A LESSON IN EROSION"

(Editorial in St. Louis Globe-Democrat, November 10, 1935)

"Any farmer in the great central watershed, in Missouri or elsewhere, who has been and still is losing valuable farm lands that are running off in liquid form could get a valuable and convincing lesson by studying one of the major problems that confronted the builders of the \$13,000,000 highway-railway bridge across the Mississippi a mile and a half above New Orleans, which will be ready for dedication and use in a few weeks.

"The big problem of the builders was to find satisfactory footing for the piers and it was solved only after sinking great caissons to firm sand lying 170 feet below the surface of the river, 80 feet of it water and 90 feet of it silt from the farm lands of the inner nation from the Rockies to the Appalachians and the Lakes to the Gulf. Had there been no erosion there would probably have been no silt. In fact, there would have been no occasion for a bridge, as without erosion which has filled the land, the Gulf of Mexico would still be washing over what is now Louisiana and sections even north of Louisiana.

"Of course, Louisiana was silted in long before America was America, but the lesson is there, none the less, with the wearing away process continuing to this day. Valuable farm lands in suspension are still going downstream, making the rich lowlands richer and impoverishing farms that feed soil to flowing water to make it muddy. On that theory, which is not a theory at all, the lowland farmers down the river are this day growing their cotton and sugar and other products suitable to their climate and industry on land from Missouri and other states that send their surface water to the Gulf. And the builders of the \$13,000,000 "Huey P. Long Bridge" were compelled, as a part of their four-year job, to dig through tons of soil which should now be growing the chief crops of corn and wheat belts.

"Much of the soil that pushed the Gulf of Mexico back to its present shoreline was taken, of course, from washings of the hills and mountains when the work was newer. But since the white man took over the prairies and valleys within the watershed and began plowing, cutting trees and overgrazing the grass an unreasonable toll has been taken from what we call our agricultural lands. We permit the waste of inches in a generation and nature can do no better than replace it at about an inch every four centuries."

TWENTY SEVEN ASSOCIATIONS ORGANIZED

Twenty-seven voluntary soil conservation associations have been organized through the cooperative efforts of the Soil Conservation Service and the State Extension Service. Thirty-six counties are represented in the twenty-seven associations.

The counties represented are: JoDaviess, Stephenson, Winnebago, Carroll, Oglo, Mercer, Knox, Marshall, Putnam, Peoria, Tazewell, McDonough, Schuyler, Brown, Adams, Pike, Morgan, Macoupin, Jersey, Madison, Bond, Macon, Coles, Crawford, Richland, Lawrence, Wabash, Edwards, Wayne, Hamilton, White, Gallatin, Saline, Williamson, Jackson, and Randolph.

Associations are being organized in seven other counties, namely: Henry, Woodford, McLean, Mason, Greene, St. Clair, and Monroe. Listed below are names of directors of fourteen associations now incorporated:

ADAMS COUNTY

Scott Meyer	Hannibal, Mo.
Walter D. Frey	Quincy
Raymond Leeper	Lima
Ben Jefferson	Clayton
Ralph Hofmeister	Liberty
Floyd L. Schriener	Loraine
Fred Loos	Payson
Harvey W. Allen	Quincy
Matthew W. Lepper	Quincy

CARROLL COUNTY

Julian Jack	Mt. Carroll
Roy Quoeckboerner	Chadwick
Truman Royer	Lanark
Herman Dachler	Chadwick
Charles Kingory	Mt. Carroll

JACKSON COUNTY

Henry Quernheim	Murphysboro
C. L. Miller	Murphysboro
Theodore Kueker	Campbell Hill
H. C. Wolfe	Murphysboro
L. A. Dietz	De Soto

JO DAVIESS COUNTY

Leslie Finkenbinder	Stockton
Ernest Kupersmith	Stockton
M. R. Stephan	Stockton
Leslie Williams	Stockton
Robert Mahoney	Stockton

MARSHALL AND PUTNAM COUNTIES

Leland Monier	Sparland
Guy R. French	Putnam
L. E. Morine	Hennepin
Charles Wier	Lacon
H. I. Webber	Sparland

BOND COUNTY

Marion W. File	Greenville
W. F. McLain	Greenville
Perry Schmollinger	Greenville
Daniel E. Diamond	Greenville
E. H. Isenberg	Greenville

EGYPTIAN ASSOCIATION; WHITE, GALLATIN HAMILTON and SALINE COUNTIES

Hugh Hole	Cottonwood
E. A. Marlin	Herald
F. M. Ziegler	Carmi
T. Kishner	Carmi
Mark Miller	Enfield
Jesse Shoeman	Carmi

JERSEY COUNTY

J. V. Kallal	Jerseyville
Frank Kenllakan	Jerseyville
Edward L. Highfill	Grafton
F. A. Downey	Jerseyville
Earl Harold	Brighton

MACON COUNTY

George H. Parr	Argenta
Everett McClelland	Oreana
Thomas B. Jack	Decatur

MCDONOUGH COUNTY

A. M. Stickle	Macomb
O. B. Twaddle	Plymouth
Charles J. Webb	Tennessee
Marion E. Herzog	Blandinsville
A. T. Steward	Macomb

PIKE COUNTY

W. Buchanan
 Frank Goodin
 Charles Fantz
 Judson Hoover
 L. R. Martin

Griggsville
 Pittsfield
 Hull
 Hilton
 Baylis

OGLE COUNTY

Amzi A. Johnston
 Leo Riley
 J. W. Hemingway
 Ed. L. Stengel Jr.
 Joe Brooks

Byron
 Oregon
 Oregon
 Mt. Morris
 Forreston

STEPHENSON COUNTY

Wesley Schaper
 George Maurer
 R. R. Thompson
 H. M. Phillips
 Roy C. Long

Freeport
 Freeport
 Pearl City
 Lona
 Freeport

WINNEBAGO COUNTY

Lewis C. Burger
 E. F. Derwent
 A. R. Fritz
 M. W. Langley
 P. D. Pirley

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GOING DOWN THE MACKINAW

Efforts were made recently to discover, if possible, just how much soil the Mackinaw carried with it after .68 inches of rainfall, a moderately heavy rain. These tests were made without use of expensive equipment and were not carried over a long period of time, but they do bring out some very interesting results that coincide with those obtained at other areas.

It was found that the Mackinaw River was carrying 83.66 pounds of silt per 1000 cubic feet of water. This would mean that every minute there are 12 tons of soil passing under the bridge on State Route 9 just west of Camp Eureka.

At the rate of 12 tons per minute there is lost through the Mackinaw, following one of these rains, 17,280 tons per day or over the four-day period of high runoff 69,120 tons of the best crop-producing soil. This is equal to an inch of soil from 460 acres, or six inches from 77 acres in the four-day period.

It is common to have 40 rains of this nature per year in receiving our annual 30 to 40-inch rainfall. This leads one to believe that at the rate of erosion, at present each year, there is an amount of silt carried down the Mackinaw, equal to 1 inch of surface soil on 27 $\frac{3}{4}$ sections or enough to equal the surface 6 inches of 2,976 acres or 4 $\frac{3}{4}$ sections. At this rate, the Mackinaw would carry away enough soil in 2 $\frac{1}{2}$ years to cover the entire watershed one inch deep and in 1 $\frac{1}{4}$ years it would carry away an amount equal to 6 inches of surface soil over the 425,000-acre watershed.

The cooperater who exclaimed to one of the men in charge of work on the soil erosion project, "My farm is going down the Mackinaw" was absolutely correct. Each rain was taking tons of soil from his farm and reducing the ability of the land to produce a comfortable living.

EROSION CONTROL PROGRAM EXPANDED

The present federal erosion control program in Illinois was begun with the establishment of ten CCC camps in the spring of 1933 under the U. S. Forest Service. In November of the same year the Soil Erosion Service established the demonstration project in McLean and Ford counties. The soil conservation program now has expanded to include three demonstration projects and thirty-two CCC camps, under the Soil Conservation Service. (See maps on opposite page showing location of camps and demonstration areas.) All work in camp areas is done by the 6,000 enrollees, WPA labor is used on the demonstration projects.

On the first demonstration project established in Illinois which was originally designated as 140,000 acres, all the major practices for control of soil erosion are being demonstrated. The two new projects established this fall in Madison and Stephenson counties will demonstrate further the proper methods for controlling soil washing in those sections of the state. Each of these two projects consists of 25,000 acres.

Erosion control work in the CCC camp areas was confined at first to building gully dams and planting trees. This program has been expanded to include all important phases of erosion control. More and more importance is being placed on the use of vegetation for conserving the soil. Contour farming and strip cropping are proving exceptionally beneficial. Terracing is rapidly gaining favor throughout the state as a satisfactory practice for saving soil and moisture on pasture or cultivated slopes which are between 3 and 8 per cent gradient.

-SCS-

TO SCS COOPERATORS

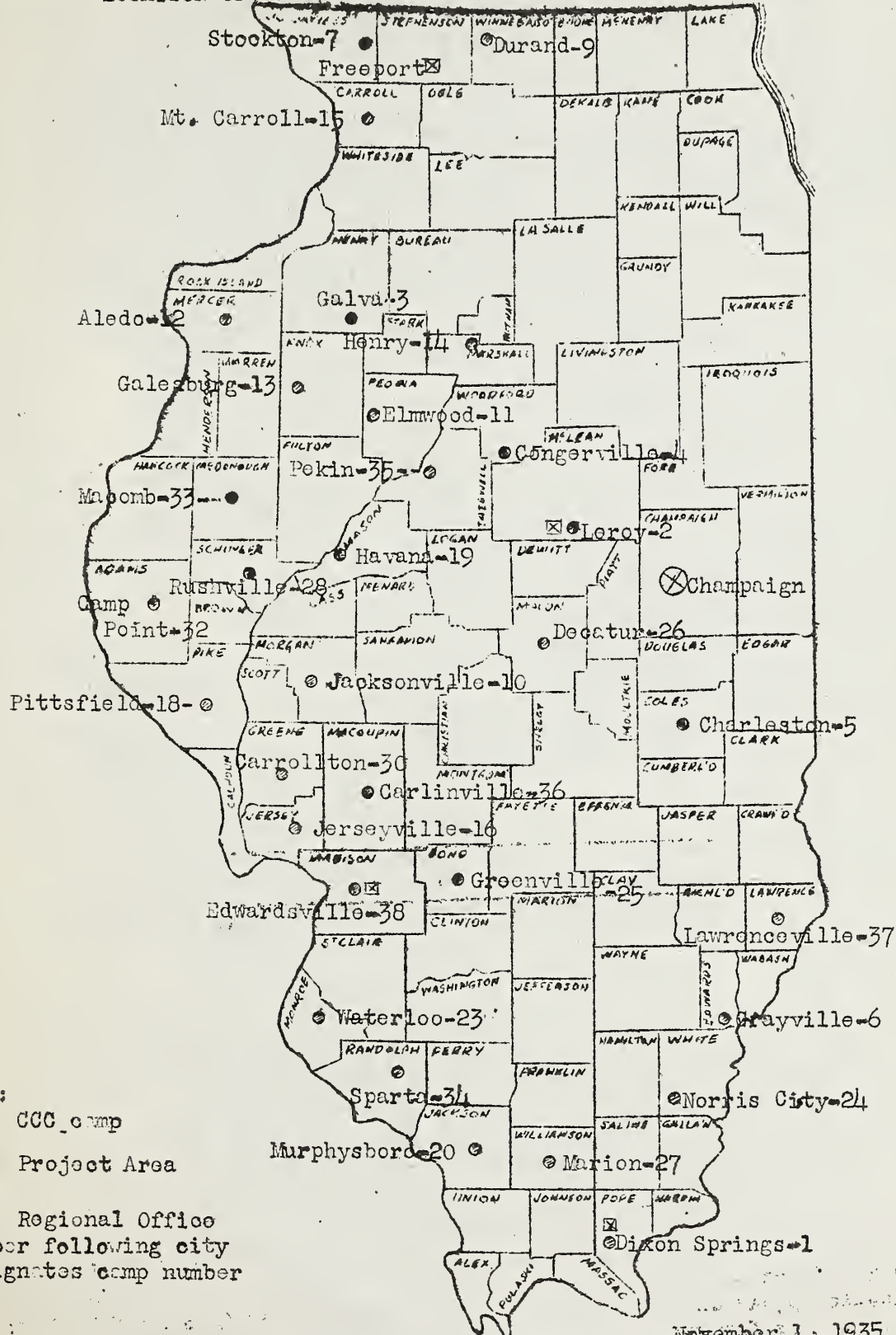
The Soil Conservation Service is vitally interested in your agricultural welfare and would like to help you solve your erosion problems. The SCS will work out with you a farm management plan adapted to the special needs for your particular farm. This plan takes into consideration soil requirements and adaptations, soil erosion control, adaptability of most profitable crops, cash crops, crop rotations, legumes, livestock requirements, and net returns to owner and operator.

We will depend on you to carry on the plan as outlined. Regardless of the number of gully structures built, acres of gully banks sloped and seeded, terraces constructed, or trees planted by the SCS, it will be impossible to achieve 100 per cent success in the way of erosion control and soil and crop improvement unless there is complete and whole-hearted cooperation by the landowners and operators in carrying on the plans agreed upon. This means planting your fields according to the plans, giving proper protection to new plantings, and maintaining all structures, especially immediately after rain.

If you have a question regarding the carrying out of any part of the plan for your farm you should call upon one of the SCS field men. He will be glad to help you.

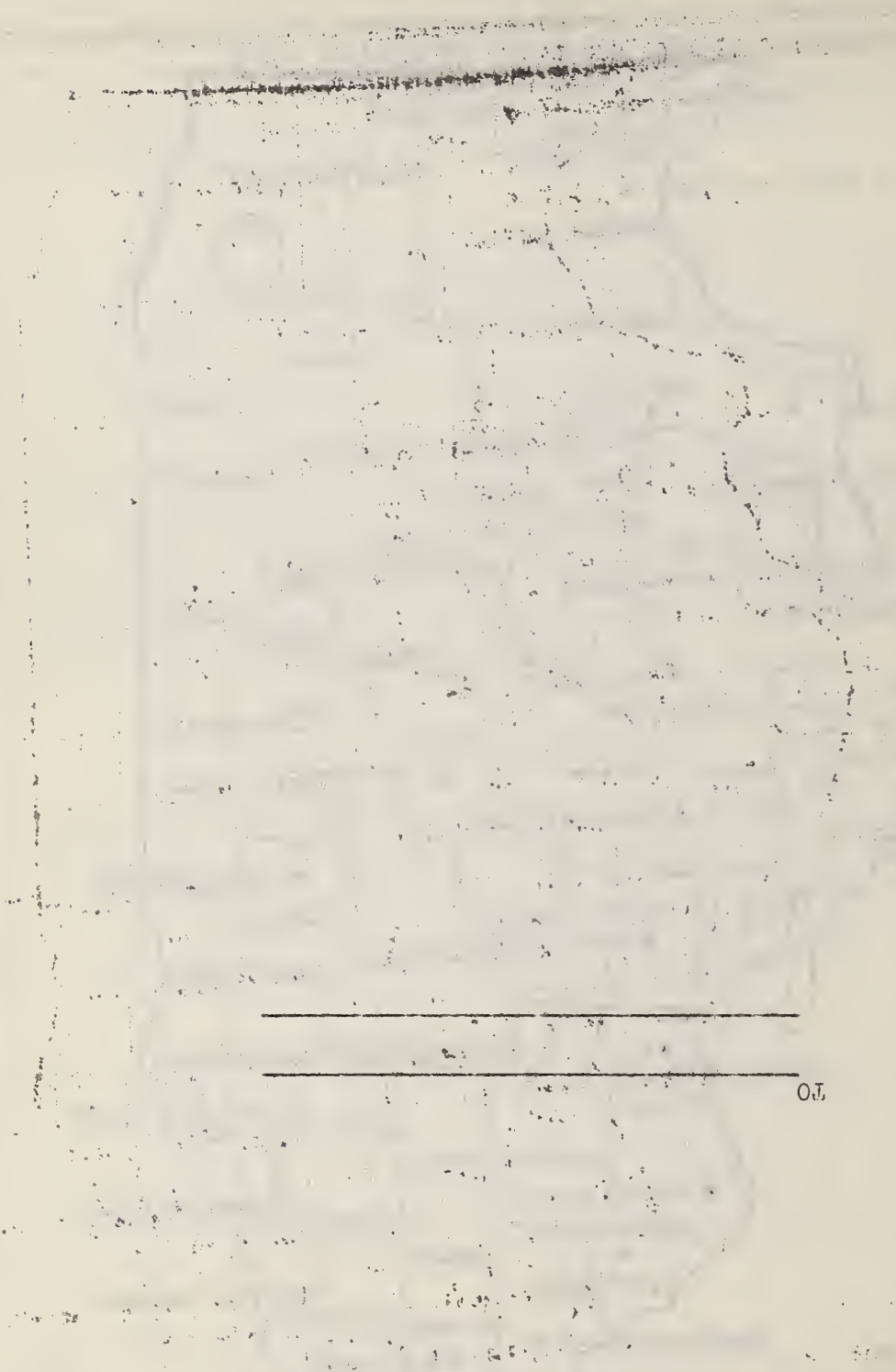
DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE ILLINOIS

LOCATION OF CCC EROSION CAMPS AND PROJECT AREAS



November 1, 1935

U.S. DEPARTMENT OF AGRICULTURE
BUREAU OF SOIL CONSERVATION
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